UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/777,203	02/05/2001	Timothy M. Schmidl	TI-31284	3036

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EXAMINER
GHULAMALI, QUTBUDDIN

ART UNIT	PAPER NUMBER
2611	

NOTIFICATION DATE	DELIVERY MODE
05/27/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@ti.com

	Application No.	Applicant(s)
Office Action Summary	09/777,203	SCHMIDL ET AL.
	Examiner	**Art Unit**	
	Qutbuddin Ghulamali	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 March 2010</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>10-22 and 33-51</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>10-22 and 33-51</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   The office action is in response to appeal brief filed 03/01/2010.

Response to Appeal Brief

2.   Applicant's request for reconsideration of the finality of the rejection of the last

Office Action is persuasive and, therefore, the finality of that action is withdrawn.

        In view of the Appeal Brief filed on 2/03/2010, PROSECUTION IS HEREBY

REOPENED.

        To avoid abandonment of the application, appellant must exercise one of the

following two options:

        (1) File a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply

under 37 CFR 1.113 (if this Office action is final); or,

        (2) Initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed

by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and

appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth

in 37 CFR 41.20 have been increased since they were previously paid, then appellant

must pay the difference between the increased fees and the amount previously paid.

        A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by

signing below:

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 10-22, 33-39, 40-41, 42-51 are rejected under 35 U.S.C. 102 (e) as being

anticipated by Mantha et al (USP 7,000,174).

Regarding claim 40, Mantha discloses a method and system of communicating

data from a transmitter to a receiver (col. 4, lines 15-19) comprising:

the receiving end receiving from the transmitter a first transmission including original

data bits and CRC bits (col. 2, lines 45-46) without the parity bits, produced at the

transmitting end by operation of an encoding algorithm applied to the original data bits

(col. 16, lines 17-49);

receiving end determining whether the original data bits have been correctly received

and responsive to a determination that the original data bits have not been received

correctly, the receiving end transmitting to the transmitting end a request for

transmission of the parity bits (col. 6, lines 59-67; col. 17, lines 1-3).

Regarding claim 41, Mantha discloses a convolutional encoder (see figs. 2, 4).

(Note, use and practice of using convolutional encoding algorithm are commonly well

known in the art).

Regarding claim 10, Mantha discloses a data communication apparatus (col. 4,

lines 15-19), comprising:

an input for receiving original data bits that are to be transmitted via a communication

channel (communication medium; col. 4, lines 49-56) to another data communication

apparatus (remote device) (col. 4, lines 15-30, 38-56);

an encoder coupled to said input for applying to the original data bits an encoding

algorithm (encoding technique) that produces parity bits (col. 3, lines 56-67; col. 4, lines

1-30);

an output for providing bits that are to be transmitted across the communication channel

(col. 4, lines 26-30); and

a data path coupled between said encoder and said output, said data path receiving

information from said another data communication apparatus (receiver), said data path

selecting one of the original data bits with CRC bits and parity bits in response to a first

information (initial information) (col. 16, lines 61-65), data path selecting the other of the

original data bits with CRC bits and parity bits in response to a second information to be

provided to out for transmission across communication channel (communication

medium) to another data communication apparatus (remote device or receiver) (col. 16,

lines 61-65; col. 17, lines 11-55; col. 18, lines 25-53).

Regarding claim 11, Mantha discloses data path includes a buffer coupled to said

encoder for storing the original data bits and the parity bits (col. 4, lines 7-14).

Regarding claim 12, Mantha discloses data path includes a selector (controller)

coupled between said buffer and said output, said selector responsive to said

information for obtaining one of the original data bits with CRC bits and the parity bits

from said buffer to be provided to said output for transmission to said another data

communication apparatus (col. 4, lines 7-14).

Regarding claim 13, Mantha discloses a first information includes an

acknowledgement (ACK) that the information received correctly a second information

includes negative acknowledgement indicating that an earlier transmission has not been

received correctly at said another communication apparatus, said data path responsive

to the negative acknowledgement for changing its selection from one of the original data

bits and the overhead bits to the other of the original data bits and the overhead bits

(col. 15, lines 29-61)

Regarding claims 14 and 22, Mantha discloses a wireless communication

apparatus (col. 29, lines 15-20).

Regarding claims 15, 47, Mantha discloses a convolutional encoder (see figs. 2,

4). (Note, use and practice of using convolutional encoding algorithm are commonly

well known in the art).

Regarding claim 16, Mantha discloses a data communication apparatus

comprising:

an input for receiving a received version of original bits with Cyclical Redundancy Check

(CRC) bits (col. 4, lines 49-56) in response to a first information without parity bits

produced at another data communication apparatus by operation of an encoding

algorithm applied to the original bits, said input receiving said parity bits in response to a

second information, said original bits with CRC bits and parity bits transmitted over a

communication channel by said another data communication apparatus (col. 3, lines 56-67; col. 4, lines 1-30, 38-56);

an error detector coupled to said input for determining whether the received version of the original data bits is correct (fig. 6; col. 10, lines 17-65); and

a controller coupled to said error detector, responsive to a determination that the received .version of the original data bits is correct for providing said first information to said another data communication apparatus, and responsive to a determination that the received version of the original data bits is incorrect for providing said second information to said another data communication apparatus (a receiver or remote unit, col. 5, lines 1-29) (col. 17, lines 35-53, 56-67; col. 18, lines 1-11).

Regarding claim 17, Mantha discloses input for receiving a received version of the overhead bits as transmitted from said another data communication apparatus, said controller coupled to said input for applying to the received version of the overhead bits a mapping (selected reordering) operation which, if the overhead bits have been received correctly at the receiving end, will result in the original data bits, said error detector coupled to said controller for applying an error detection procedure to the result of the mapping (selected reordering, arranged in a specific order or scheme) operation to determine whether the mapping operation has resulted in the original data bits (col. 10, lines 3-38).

Regarding claims 18, 36, 38, 45 and 49 Mantha discloses a decoder (fig. 6, element 64a, 64b) coupled to input and controller, the controller responsive to a determination by said error detector that the mapping operation has not resulted in the

original data bits for signaling said decoder to apply to the received version, of the

original data bits and the received version of the overhead bits a decoding algorithm

that corresponds to said encoding algorithm (col. 10, lines 3-64).

Regarding claim 19, Mantha discloses a buffer coupled between said input and

said decoder for storing the received version of the original bits and the received version

of the overhead bits for use by said decoder (col. 4, lines 7-14).

Regarding claim 20, Mantha discloses error detector is coupled to said decoder

for determining whether said decoding algorithm has resulted in the original data bits,

controller operable in response to a determination that said decoding algorithm has not

resulted in the original data bits for providing for transmission to other data

communication apparatus a request for retransmission of the original data bits (col. 6,

lines 45-67; col. 7, lines 1-5).

Regarding claims 21, 37, 44 Mantha discloses decoder is a Viterbi decoder (col.

10, lines 3-64) (Note, as best understood by the examiner, Viterbi decoder for decoding

is conventionally well known in the art).

Regarding claims 33, 42 and 46, Mantha discloses a data communications

system and a method for transmission of signals from a transmitter to a receiver, the

transmitter comprising:

the transmitter end applying to a plurality of original data bits that are to be transmitted

to the receiving end an encoding algorithm that produces CRC bits and parity bits (col.

4, lines 15-30);

the transmitting end transmitting the original data bits and CRC bits without the parity

bits in a first transmission to the receiving end (col. 2, lines 45-46; col. 16, lines 17-49);

and

transmitting end refraining from transmitting the parity bits until the transmitting end

receives an indication of error in reception from the receiving end (col. 15, lines 29-39).

Regarding claims 34 and 43, the claim is not further limiting claim 33, and having

same or similar limitations as recited in claim 33, is likewise rejected.

Regarding claims 35, 48, 50 and 51, Mantha discloses all limitations of the claim

above. Mantha further discloses, receiving end combining a received version of the

original data bits and a received version of the parity bits to produce a combined set of

received bits and the receiving end applying to the combined set of received bits a

decoding algorithm that corresponds to said encoding (col. 17, lines 56-67; col. 18, lines

1-11).

As per claim 39, Mantha discloses transmitter end retransmitting the original data

bits to the receiving end and, in response to a determination by the receiving end that

said retransmission of the original data bits has not been received correctly, the

receiving end combining a received version of the retransmitted original data bits with

said received version of the overhead bits to produce another combined set of received

bits, and the receiving end applying said decoding algorithm to said another combined

set of received bits col. 10, lines 3-64).

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutbuddin Ghulamali whose telephone number is (571)-272-3014. The examiner can normally be reached on Monday-Friday, 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QG.
May 22, 2010.

/CHIEH M FAN/
Supervisory Patent Examiner, Art Unit 2611